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19 and pharmaceutical

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| USPT | l9 and circularize | 1 | <u>L11</u> |
| USPT | l9 and padlock | 2 | <u>L10</u> |
| USPT | Landegren [inv] | 9 | <u>L9</u> |
| USPT | (l6 or l7 or l5) and (catenate or catenation) | 3 | <u>L8</u> |
| USPT | l6 and pharmaceutical | 2 | <u>L7</u> |
| USPT | (padlock near5 oligonucleotide) or (padlock near5 probe) | 18 | <u>L6</u> |
| USPT | l1 and l2 and l3 and l4 | 28 | <u>L5</u> |
| USPT | transcription | 17365 | <u>L4</u> |
| USPT | hoogsteen | 358 | <u>L3</u> |
| USPT | triplex | 1989 | <u>L2</u> |
| USPT | antigene | 312 | <u>L1</u> |

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Entry 1 of 18

File: USPT

Apr 11, 2000

US-PAT-NO: 6048974

DOCUMENT-IDENTIFIER: US 6048974 A

TITLE: Oligonucleotide clamps having diagnostic and therapeutic applications

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 2. Document ID: US 6027889 A

Entry 2 of 18

File: USPT

Feb 22, 2000

US-PAT-NO: 6027889

DOCUMENT-IDENTIFIER: US 6027889 A

TITLE: Detection of nucleic acid sequence differences using coupled ligase detection and polymerase chain reactions

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 3. Document ID: US 6007994 A

Entry 3 of 18

File: USPT

Dec 28, 1999

US-PAT-NO: 6007994

DOCUMENT-IDENTIFIER: US 6007994 A

TITLE: Multiparametric fluorescence in situ hybridization

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 4. Document ID: US 5993611 A

Entry 4 of 18

File: USPT

Nov 30, 1999

US-PAT-NO: 5993611

DOCUMENT-IDENTIFIER: US 5993611 A

TITLE: Capacitive denaturation of nucleic acid

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 5. Document ID: US 5952201 A

Entry 5 of 18

File: USPT

Sep 14, 1999

US-PAT-NO: 5952201

DOCUMENT-IDENTIFIER: US 5952201 A

TITLE: Method of preparing oligonucleotide probes or primers, vector therefor and use thereof

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

6. Document ID: US 5939291 A

Entry 6 of 18

File: USPT

Aug 17, 1999

US-PAT-NO: 5939291

DOCUMENT-IDENTIFIER: US 5939291 A

TITLE: Microfluidic method for nucleic acid amplification

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

7. Document ID: US 5914230 A

Entry 7 of 18

File: USPT

Jun 22, 1999

US-PAT-NO: 5914230

DOCUMENT-IDENTIFIER: US 5914230 A

TITLE: Homogeneous amplification and detection of nucleic acids

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

8. Document ID: US 5914229 A

Entry 8 of 18

File: USPT

Jun 22, 1999

US-PAT-NO: 5914229

DOCUMENT-IDENTIFIER: US 5914229 A

TITLE: Method for amplifying a polynucleotide

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

9. Document ID: US 5912124 A

Entry 9 of 18

File: USPT

Jun 15, 1999

US-PAT-NO: 5912124

DOCUMENT-IDENTIFIER: US 5912124 A

TITLE: Padlock probe detection

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

10. Document ID: US 5908755 A

Entry 10 of 18

File: USPT

Jun 1, 1999

US-PAT-NO: 5908755

DOCUMENT-IDENTIFIER: US 5908755 A

TITLE: Sequential step method for sequencing and identifying polynucleotides

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Document Number 11

Entry 11 of 18

File: USPT

Feb 16, 1999

US-PAT-NO: 5871921

DOCUMENT-IDENTIFIER: US 5871921 A

TITLE: Circularizing nucleic acid probe able to interlock with a target sequence through catenation

DATE-ISSUED: February 16, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|------------------|-------|----------|---------|
| Landegren; Ulf | S-756 46 Uppsala | N/A | N/A | SEX |
| Kwiatkowski; Marek | S-756 52 Uppsala | N/A | N/A | SEX |

US-CL-CURRENT: 435/6

CLAIMS:

What is claimed is:

1. A method of detecting a target nucleic acid sequence in a sample, said method comprising
 - a) providing a detectable probe having two free nucleic acid ends which are at least partially complementary to and capable of hybridizing to two adjacent regions of said target sequence;
 - b) hybridizing said probe ends to said target sequence under hybridizing conditions;
 - c) covalently connecting said ends of said hybridized probe with each other to form a circularized structure which interlocks with said target sequence through catenation;
 - d) subjecting said target sequence and said probe to non-hybridizing conditions and optionally to exonuclease activity, wherein any non-circularized probe is removed from said target sequence;
 - e) optionally repeating steps b) to d) one or more times; and
 - f) detecting the presence of said probe, wherein the presence of said probe is indicative of the presence of said target nucleic acid sequence.
2. The method according to claim 1, wherein in said step b), said probe ends hybridize to said target sequence to leave an interspace between said probe ends, wherein said step b) further comprises
 - b1) providing at least one additional probe having two free nucleic acid ends, wherein said additional probe hybridizes to said target sequence in said interspace, and wherein said step c) comprises
 - c) covalently connecting each of said respective ends of said probe in said step a) to the respective adjacent end of said additional probe to form a circularized structure which interlocks with said target sequence through catenation.
3. The method according to claim 1, wherein said probe hybridizes to said target sequence to leave a gap of one or more nucleotides between adjacent probe ends, and wherein said step b) further comprises
 - b1) filling said gap by an extension reaction prior to covalently connecting said probe ends.
4. The method according to claim 1 or 3, wherein said covalent connecting of said probe ends is performed by a reaction selected from the group consisting of an enzymatic reaction, a ribozyme-mediated

reaction, and a chemical ligation reaction.

5. The method according to claim 1 or 3, wherein said target sequence is a DNA or RNA sequence.

6. The method according to claim 1 or 3, wherein said probe is an oligonucleotide.

7. The method according to claim 1 or 3, wherein said probe further comprises one or more intermediate segments having a nucleic acid composition and wherein said probe is stabilized by hybridization of a stabilizer oligonucleotide sequence to said one or more intermediate segments of said probe.

8. The method according to claim 1 or 3, wherein said probe further comprises one or more intermediate segments having a composition other than nucleic acid.

9. The method according to claim 8, wherein said one or more intermediate segments are comprised of material selected from the group consisting of protein, polypeptide, carbohydrate and a synthetic polymer.

10. The method according to claim 1 or 3, wherein said probe contains from about 10 to about 200 bases.

11. The method according to claim 1 or 3, wherein said target sequence is in single-stranded form.

12. The method according to claim 1 or 3, wherein said probe is immobilized to a solid phase.

13. The method according to claim 1 or 3, wherein said target sequence is immobilized to a solid phase.

14. The method according to claim 13, wherein said sample is a DNA library, wherein said target sequence is DNA, and said method further comprising

- g) cleaving said immobilized circularized probe;
- h) subjecting the probe/target DNA complex to denaturing conditions to release said target DNA sequence; and
- i) transforming bacteria with said target DNA sequence.

15. A method of selectively capturing a target nucleic acid sequence to a solid support, said method comprising

- a) providing a probe having two free nucleic acid ends which are at least partially complementary to and capable of hybridizing to two adjacent regions of said target sequence, and said probe being immobilized to a solid support;
- b) hybridizing said probe ends to said target sequence under hybridizing conditions;
- c) covalently connecting said ends of said hybridized probe with each other to form a circularized structure which interlocks with said target sequence through catenation; and
- d) subjecting said support and said captured target sequence to non-hybridizing conditions, wherein any non-catenated target sequence is removed from said support.

16. The method according to claim 4, wherein said reaction is an enzymatic ligation reaction.

17. The method according to claim 15, said method further comprising

- e) cleaving said probe in a part thereof not participating in the hybridization, wherein said target sequence is released.

18. The method according to claim 2, wherein said probe and said additional probe hybridize to said target sequence to leave gaps of one or more nucleotides between said adjacent ends of said probe and said additional probe, and wherein said step b1) further comprises

- ii) filling said gaps by an extension reaction prior to covalently interconnecting said probe and additional probe ends.

19. The method according to claim 2 or 18, wherein said covalent connection of said probe and said additional probe ends is performed by a reaction selected from the group consisting of an enzymatic reaction, a ribozyme-mediated reaction, and a chemical ligation reaction.

20. The method according to claim 19, wherein said reaction is an enzymatic ligation reaction.

21. The method according to claim 2 or 18, wherein said target sequence is a DNA or RNA sequence.

22. The method according to claim 2 or 18, wherein said probe is an oligonucleotide.

23. The method according to claim 2 or 18, wherein said probe further

comprises one or more intermediate segments having a nucleic acid composition, and wherein said probe is stabilized by hybridization of a stabilizer oligonucleotide to said one or more intermediate segments.

24. The method according to claim 2 or 18, wherein said probe further comprises one or more intermediate segments having a composition other than nucleic acid.

25. The method according to claim 24, wherein said one or more intermediate segments are comprised of a material selected from the group consisting of protein, polypeptide, carbohydrate, and synthetic polymer.

26. The method according to claim 2 or 18, wherein said probe and said additional probe contain from about 10 to about 200 bases.

27. The method according to claim 2 or 18, wherein said target sequence is in single-stranded form.

28. The method according to claim 2 or 18, wherein said probe is immobilized to a solid phase.

29. The method according to claim 2 or 18, wherein said target sequence is immobilized to a solid phase.

30. The method according to claim 29, wherein said sample is a DNA library, wherein said target sequence is DNA, and said method further comprising

g) cleaving said immobilized circularized probe;

h) subjecting the probe/target DNA complex to denaturing conditions to release said target DNA sequence; and

i) transforming bacteria with said target DNA sequence.

31. The method according to claim 4, wherein said reaction is a ribozyme-mediated reaction.

32. The method according to claim 4, wherein said reaction is a chemical ligation reaction.

33. The method according to claim 5, wherein said target sequence is a DNA sequence.

34. The method according to claim 5, wherein said target sequence is an RNA sequence.

35. The method according to claim 9, wherein said material is protein.

36. The method according to claim 9, wherein said material is polypeptide.

37. The method according to claim 9, wherein said material is carbohydrate.

38. The method according to claim 9, wherein said material is a synthetic polymer.

39. The method according to claim 19, wherein said reaction is a ribozyme-mediated reaction.

40. The method according to claim 19, wherein said reaction is a chemical ligation reaction.

41. The method according to claim 21, wherein said target sequence is a DNA sequence.

42. The method according to claim 21, wherein said target sequence is an RNA sequence.

43. The method according to claim 25, wherein said material is protein.

44. The method according to claim 25, wherein said material is polypeptide.

45. The method according to claim 25, wherein said material is carbohydrate.

46. The method according to claim 25, wherein said material is a synthetic polymer.

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File: USPT

Feb 16, 1999

US-PAT-NO: 5871921

DOCUMENT-IDENTIFIER: US 5871921 A

TITLE: Circularizing nucleic acid probe able to interlock with a target sequence through catenation

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 12. Document ID: US 5866336 A

Entry 12 of 18

File: USPT

Feb 2, 1999

US-PAT-NO: 5866336

DOCUMENT-IDENTIFIER: US 5866336 A

TITLE: Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 13. Document ID: US 5863801 A

Entry 13 of 18

File: USPT

Jan 26, 1999

US-PAT-NO: 5863801

DOCUMENT-IDENTIFIER: US 5863801 A

TITLE: Automated nucleic acid isolation

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 14. Document ID: US 5854033 A

Entry 14 of 18

File: USPT

Dec 29, 1998

US-PAT-NO: 5854033

DOCUMENT-IDENTIFIER: US 5854033 A

TITLE: Rolling circle replication reporter systems

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 15. Document ID: US 5817795 A

Entry 15 of 18

File: USPT

Oct 6, 1998

US-PAT-NO: 5817795

DOCUMENT-IDENTIFIER: US 5817795 A

TITLE: Oligonucleotide clamps having diagnostic and therapeutic applications

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 16. Document ID: US 5770408 A

Entry 16 of 18

File: USPT

Jun 23, 1998

US-PAT-NO: 5770408

DOCUMENT-IDENTIFIER: US 5770408 A

TITLE: Method for the amplification of a base sequence

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 17. Document ID: US 5770370 A

Entry 17 of 18

File: USPT

Jun 23, 1998

US-PAT-NO: 5770370

DOCUMENT-IDENTIFIER: US 5770370 A

TITLE: Nuclease protection assays

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#) 18. Document ID: US 4094173 A

Entry 18 of 18

File: USPT

Jun 13, 1978

US-PAT-NO: 4094173

DOCUMENT-IDENTIFIER: US 4094173 A

TITLE: Vehicle lock

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)[Generate Collection](#)

| Terms | Documents |
|--|-----------|
| (padlock near5 oligonucleotide) or (padlock near5 probe) | 18 |

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including document number

18

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Entry 1 of 2

File: USPT

Apr 11, 2000

US-PAT-NO: 6048974

DOCUMENT-IDENTIFIER: US 6048974 A

TITLE: Oligonucleotide clamps having diagnostic and therapeutic applications

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KMC](#) [Image](#) 2. Document ID: US 5817795 A

Entry 2 of 2

File: USPT

Oct 6, 1998

US-PAT-NO: 5817795

DOCUMENT-IDENTIFIER: US 5817795 A

TITLE: Oligonucleotide clamps having diagnostic and therapeutic applications

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KMC](#) [Image](#)[Generate Collection](#)**Terms****Documents**

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| Date | Reference | Claims | KMC | | |

Document Number 1

Entry 1 of 18

File: USPT

Apr 11, 2000

US-PAT-NO: 6048974

DOCUMENT-IDENTIFIER: US 6048974 A

TITLE: Oligonucleotide clamps having diagnostic and therapeutic applications

DATE-ISSUED: April 11, 2000

INVENTOR INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|-----------|-------|----------|---------|
| Gryaznov; Sergei M. | San Mateo | CA | N/A | N/A |
| Lloyd; David H. | Daly City | CA | N/A | N/A |

ASSIGNEE INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|-------------------------|---------|-------|----------|---------|-----------|
| Lynx Therapeutics, Inc. | Hayward | CA | N/A | N/A | 02 |

APPL-NO: 9/ 070477

DATE FILED: April 30, 1998

PARENT-CASE:

This application is a continuation of U.S. application Ser. No. 08/713,685 filed Sep. 17, 1996, now U.S. Pat. No. 5,817,795 which is a continuation of Ser. No. 08/461,271 filed Jun. 5, 1995, now U.S. Pat. No. 5,741,643 which is a division of Ser. No. 08/087,387 filed Jul. 2, 1993, now U.S. Pat. No. 5,473,060, all of which are incorporated herein by reference.

INT-CL: [7] C07H 21/02, C07H 21/04

US-CL-ISSUED: 536/24.3; 536/22.1, 536/23.1

US-CL-CURRENT: 536/24.3; 536/22.1, 536/23.1

FIELD-OF-SEARCH: 536/22.1, 536/23.1, 536/24.3, 435/6

REF-CITED:

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| Date | Reference | Claims | KWIC | | |

Document Number 1

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File: USPT

Sep 14, 1999

US-PAT-NO: 5952201

DOCUMENT-IDENTIFIER: US 5952201 A

TITLE: Method of preparing oligonucleotide probes or primers, vector therefor and use thereof

DATE-ISSUED: September 14, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|----------------|------------------|-------|----------|---------|
| Landegren, Ulf | S-756 46 Uppsala | N/A | N/A | SEX |
| Sundvall, Mats | S-753 30 Uppsala | N/A | N/A | SEX |

US-CL-CURRENT: 435/91.2; 435/320.1, 435/91.52

CLAIMS:

We claim:

1. A method of making amplification primers, said method comprising:
 - (a) ligating a DNA sequence into a linear nucleotide sequence to form a nucleic acid sequence comprising said DNA segment and an asymmetrically cleaving restriction enzyme recognition sequence at each end of said DNA segment;
 - (b) amplifying said nucleic acid sequence, using a primer having a sequence corresponding to said recognition sequence, to form an amplification product;
 - (c) forming restriction fragments by digesting said amplification product with said asymmetrically cleaving restriction enzyme, each of said restriction fragments having two ends, wherein two of said restriction fragments contain said asymmetrically cleaving restriction enzyme recognition sequence at one of said two ends;
 - (d) purifying said restriction fragments containing said asymmetrically cleaving restriction enzyme recognition sequence at one of said two ends; and
 - (e) rendering said restriction fragments of step (d) single-stranded to form said amplification primers.
2. The method of claim 1, wherein said linear nucleotide sequence is a cleaved vector.
3. The method of claim 1, wherein the 5' end of each of said primers is protected from exonuclease digestion, and wherein step (e) comprises digesting said restriction fragments with λ exonuclease.
4. The method of claim 3, wherein the 5' end of each of said primers is protected from exonuclease digestion by biotinylation.
5. The method of claim 1, wherein in said step (a), the same recognition sequence is formed at each end of said DNA segment, and wherein in said step (c), the restriction fragments are formed using one asymmetrically cleaving restriction enzyme.
6. The method of claim 1, wherein said step (b) further comprises (b1) immobilizing said amplification product on a solid support.
7. The method of claim 1, wherein said asymmetrically cleaving restriction enzyme is a type III restriction enzyme.
8. The method of claim 1, wherein said asymmetrically cleaving

restriction enzyme is a type IV restriction enzyme.

9. The method of claim 8, wherein said type IV restriction enzyme is GsulI.

10. The method of claim 8, wherein said type IV restriction enzyme is Eco57I.

11. The method of claim 8 wherein said type IV restriction enzyme is MmeI.

12. The method of claim 1 wherein said asymmetrically cleaving restriction enzyme is Eco15.

13. The method of claim 1 wherein said asymmetrically cleaving restriction enzyme is HinP151.

14. A method of amplifying a fragment of DNA, said method comprising
(a) making amplification primers according to the method of any one of claims 1-3; and
(b) amplifying said fragment of DNA using said amplification primers.

15. The method of claim 14, said method further comprising
(c) further amplifying said fragment of DNA using linker primers.

16. The method of claim 14, wherein said fragment of DNA is genomic DNA.

17. A method of making a circularizable DNA probe, said method comprising
(a) ligating a DNA fragment into a vector to form a DNA sequence comprising said DNA fragment and a recognition sequence for an asymmetrically cleaving restriction enzyme at one end of said fragment;
(b) transforming bacteria with said DNA sequence;
(c) generating a single-stranded molecule comprising said DNA fragment and a recognition sequence for an asymmetrically cleaving restriction enzyme at one end of said DNA fragment;
(d) immobilizing said single-stranded molecule on a solid phase;
(e) hybridizing to said single-stranded molecule a primer corresponding to said asymmetrically cleaving restriction enzyme recognition sequence;
(f) forming a double-stranded recognition sequence by extending said primer; and
(g) digesting said double-stranded recognition sequence with said asymmetrically cleaving restriction enzyme to form a circularizable DNA probe.

18. The method of claim 17, wherein said recognition sequence is present in said vector prior to the ligation of said DNA fragment into said vector.

19. The method of claim 17, wherein said recognition sequence is formed when said DNA fragment is ligated into said vector.

20. The method of claim 17, wherein said asymmetrically cleaving restriction enzyme is a type III restriction enzyme.

21. The method of claim 17, wherein said asymmetrically cleaving restriction enzyme is a type IV restriction enzyme.

22. The method of claim 21, wherein said type IV restriction enzyme is GsulI.

23. The method of claim 21, wherein said type IV restriction enzyme is Eco57I.

24. The method of claim 21, wherein said type IV restriction enzyme is MmeI.

25. The method of claim 17, wherein said asymmetrically cleaving restriction enzyme is Eco15.

26. The method of claim 17, wherein said asymmetrically cleaving restriction enzyme is HinP151.

27. A method of capturing a target nucleic acid molecule, said method comprising
(a) making a circularizable DNA probe according to the method of claim 17, wherein said circularizable DNA probe hybridizes to said target nucleic acid molecule;
(b) hybridizing said target nucleic acid molecule to said circularizable DNA probe; and
(c) forming a circular molecule by joining the ends of said circularizable DNA probe using a ligase to catenate said circularizable DNA probe to said target nucleic acid molecule.

28. The method of claim 27, further comprising
(d) cleaving said circular molecule to release said target nucleic

acid molecule.

29. A kit for making amplification primers, said kit comprising
(i) a vector containing a cleavage site for the insertion of a DNA
fragment, and said vector also containing a recognition sequence for
an asymmetrically cleaving restriction enzyme on each side of said
cleavage site;

(ii) a primer which hybridizes to said vector; and
(iii) an asymmetrically cleaving restriction enzyme that recognizes
said recognition sequence to cleave within the inserted DNA fragment.

30. A kit for making a circularizable probe, said kit comprising
(i) a single-stranded vector containing a cleavage site for the
insertion of a DNA fragment, a single recognition sequence for an
asymmetrically cleaving restriction enzyme on one side of said
cleavage site, and a single recognition sequence for a further
restriction enzyme, wherein said further restriction enzyme is
different than said asymmetrically cleaving restriction enzyme; and
(ii) a primer which hybridizes to said vector at said single
recognition sequence for said further restriction enzyme that is
different than said asymmetrically cleaving restriction enzyme.

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File: USPT

Sep 14, 1999

US-PAT-NO: 5952201

DOCUMENT-IDENTIFIER: US 5952201 A

TITLE: Method of preparing oligonucleotide probes or primers, vector therefor and use thereof

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KMC](#) [Image](#) 2. Document ID: US 5876941 A

Entry 2 of 9

File: USPT

Mar 2, 1999

US-PAT-NO: 5876941

DOCUMENT-IDENTIFIER: US 5876941 A

TITLE: Detection of mismatches by resolvase cleavage on a solid support

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KMC](#) [Image](#) 3. Document ID: US 5871921 A

Entry 3 of 9

File: USPT

Feb 16, 1999

US-PAT-NO: 5871921

DOCUMENT-IDENTIFIER: US 5871921 A

TITLE: Circularizing nucleic acid probe able to interlock with a target sequence through catenation

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KMC](#) [Image](#) 4. Document ID: US 5759784 A

Entry 4 of 9

File: USPT

Jun 2, 1998

US-PAT-NO: 5759784

DOCUMENT-IDENTIFIER: US 5759784 A

TITLE: Method of nucleic acid transfer

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Claims](#) [KMC](#) [Image](#) 5. Document ID: US 5759773 A

Entry 5 of 9

File: USPT

Jun 2, 1998

US-PAT-NO: 5759773
DOCUMENT-IDENTIFIER: US 5759773 A
TITLE: Sensitive nucleic acid sandwich hybridization assay

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

6. Document ID: US 5652107 A

Entry 6 of 9

File: USPT

Jul 29, 1997

US-PAT-NO: 5652107
DOCUMENT-IDENTIFIER: US 5652107 A
TITLE: Diagnostic assays and kits for RNA using RNA binary probes and a ribozyme ligase

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

7. Document ID: US 5618701 A

Entry 7 of 9

File: USPT

Apr 8, 1997

US-PAT-NO: 5618701
DOCUMENT-IDENTIFIER: US 5618701 A
TITLE: Method of processing nucleic acid samples

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

8. Document ID: US 5599660 A

Entry 8 of 9

File: USPT

Feb 4, 1997

US-PAT-NO: 5599660
DOCUMENT-IDENTIFIER: US 5599660 A
TITLE: Method and preparation for sequential delivery of wax-embedded, inactivated biological and chemical reagents

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Image](#)

9. Document ID: US 4988617 A

Entry 9 of 9

File: USPT

Jan 29, 1991

US-PAT-NO: 4988617
DOCUMENT-IDENTIFIER: US 4988617 A
TITLE: Method of detecting a nucleotide change in nucleic acids

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